

REMARKS

Claims 1-7, 9-13, 17, and 19-21 remain in the application. Applicants respectfully request entry of the above amendments as they place the claims in condition for allowance.

Claim Rejections – 35 U.S.C. § 112

Claims 1-7, 9-13, 17, and 19-21 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. According to the last office action, the recited “atmosphere” is unclear because it is not defined. The rejection is respectfully traversed.

It is well established that claims are read as they would be understood by one of ordinary skill in the art. It respectfully submitted that in the semiconductor equipment industry, it is well understood that “atmosphere” refers to an environment that is not under vacuum. For example, semiconductor processing robots may be “atmospheric robots” or “vacuum robots” depending on whether the robot is operable under vacuum or not. “Atmosphere” is also used in the same context in the specification (e.g., see Specification, page 6, line 7 to page 7, line 4). It is respectfully submitted that reading “atmosphere” to be the “atmosphere” of a chamber even if that chamber is under vacuum is an unreasonable claim construction. In any event, to expedite prosecution, claims 1 and 17 have been amended to recite “atmospheric pressure.”

Applicants respectfully request the Examiner to call the undersigned if there are any other aspects of the claims the Examiner deems unclear.

Claim Rejections -- 35 U.S.C. § 103

Claims 1-7, 9-13, 17, and 19-21 stand rejected under 35 U.S.C. § 103 as being unpatentable over US 6,251,759 to Guo et al. (“Guo”) in view of US 6,270,582 to Rivkin et al. (“Rivkin”). As will be more apparent below, the aforementioned claims relate to a wafer processing system that is very different from that of Guo and Rivkin.

Claim 1 is patentable over the Guo/Rivkin combination at least for reciting: "the pedestal being an only wafer support located within the load lock, the load lock having an integral cooling unit for cooling the single wafer." Neither Guo nor Rivkin has a pedestal that is the only wafer support located in the load lock. As noted in the last office action, Rivkin has more than one "pedestal" in its load lock, namely "pedestal 136, 182, and 184."

Claims 1 is patentable over the Guo/Rivkin combination at least for reciting: "the robot being under atmospheric pressure during normal operation." For example, the cited robot 119 of Guo is not disclosed as being under atmospheric pressure during normal operation. On the contrary, it appears that robot 119 is under vacuum because it is located in a buffer chamber 113 that is after load locks 114 (see Guo, FIG. 1).

Claims 2-7 and 9-13 depend on claim 1. Therefore, it is respectfully submitted that claims 2-7 and 9-13 are patentable over the Guo/Rivkin combination at least for the same reasons that claim 1 is patentable, as well as because of the combination of features set forth in these claims and in claim 1.

Claims 17 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Guo in view of U.S. Patent No. 5,281,320 to Turner et al. ("Turner"). Claim 17 is patentable over the Guo/Turner combination at least for reciting: "the first robot being under atmospheric pressure during normal operation." As discussed above, Guo does not disclose that its robot 119 is under atmospheric pressure. In fact, it appears that robot 119 is under vacuum. Turner does not disclose the recited robot either.

Claim 20 depends on claim 17. Therefore, it is respectfully submitted that claim 20 is patentable over the Guo/Turner combination for the same reasons, as well as because of the combination of features set forth in claim 20 and in claim 17.

Claims 1-7, 9-13, and 19-21 stand rejected under 35 U.S.C. § 103 as being unpatentable over Guo in view of Turner and Rivkin.

Neither Guo, Turner, nor Rivkin discloses the recited robot under atmospheric pressure during normal operation. For example, in Guo, robot 119 is not disclosed as being under atmospheric pressure during normal operation.

Furthermore, neither Guo, Turner, nor Rivkin discloses a load lock that only has a single pedestal, the single pedestal supporting the wafer during pump down. For example, Turner's vacuum chuck 60 withdraws after a wafer is brought into load lock 12 (Turner, column 12, lines 20-37). In other words, Turner's vacuum chuck 60 is not located in load lock 12. Rivkin has more than one pedestal in the load lock. Therefore, Claims 1-7, 9-13, and 19-21 are patentable over the Guo/Turner/Rivkin combination.

Double Patenting

Claims 1-7, 9-13, 17, and 19-21 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over US 6,431,807 to Stevens et al. ("Stevens") in view of Guo. Applicants will file a terminal disclaimer if the instant claims are deemed allowable.

Conclusion

For at least the above reasons, it is respectfully submitted that claims 1-7, 9-13, 17, and 19-21 are in condition for allowance. The Examiner is invited to telephone the undersigned at (408)436-2112 for any questions.

If for any reason an insufficient fee has been paid, the Commissioner is hereby authorized to charge the insufficiency to Deposit Account No. 50-2427.

Respectfully submitted,
Craig L. Stevens et al.

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Response To Final Office Action

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